Design-Based Codes

The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.

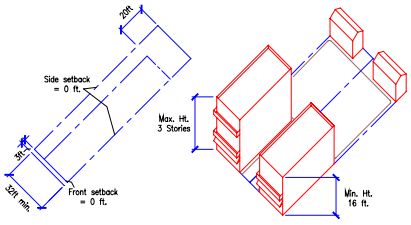
- Charter for the New Urbanism

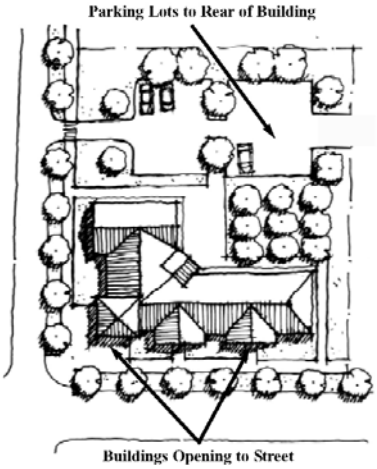
Urban codes that regulate the design of buildings and streets have been in existence since the architect Vitruvius transcribed them in ancient Rome. Later, these practices were adopted by Renaissance Italy when architects such as Palladio published their handbooks of building form and design. The first recorded use of public design guidelines was in Siena, Italy, in the 13th century, when elected officials sat in judgment upon buildings that were to line that city's streets and great public piazza.

In North America, our development regulations date to the Law of the Indes set forth by King Felipe II of Spain on July 13, 1573. Their purpose was set forth as follows: "*That in order that the discoveries and new settlements and pacification of the land and provinces that are to be discovered, settled, and pacified in the Indies be done with greater facility and in accordance with the service to God Our Lord, and for the welfare of the natives, among other things, we have prepared the following ordinances.*"

The regulations for new settlements and towns included specific criteria for the placement and design of the central plaza or square, the location of civic buildings, the size of urban, the dedication of public open space, and the segregation of noxious uses.

Today, our principal tools of regulating the growth of our communities are Zoning and Subdivision Ordinances. These tools, with their unyielding reliance on the strict segregation of uses, are highly inferior to our ancient codes in the creation of beautiful communities.





Design-based codes are richly illustrated to convey key design standards found in the text

Fortunately, within the past two decades, progress is slowly emerging in this field. Beginning with "Performance Zoning" in the early 1980's, Zoning Ordinances are becoming more sophisticated in the requirements for new construction.

Most recently, a new model has emerged known as "Design-Based Codes" or "Form-Based Codes." This evolution in the precision of community regulations have been largely attributed to the rise of New Urbanism, a movement that has sought to improve the quality of the human habitat through design.

Modern design-based codes seek to prescribe the physical design of buildings and infrastructure while permitting a greater flexibility in the use and activity. These codes recognize that many of our most cherished neighborhoods and downtowns were constructed during a period before zoning. As such, these areas have been much more adaptable to changes in demographics, retail trends, and technology (i.e. telecommuting) than new suburban subdivisions with rigid setbacks, narrow use requirements, and overbearing restrictive covenants that typically promote monotony and predictability.

The key to the successful implementation of design-based codes is based on the following key elements:

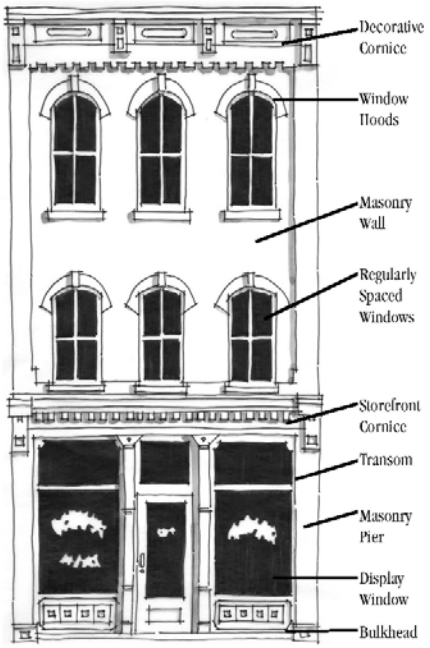
1. Clear and concise standards
2. Style neutral
3. Easy to read format
4. Streamlined permitting

To ensure success, all four elements must be incorporated into any effort, otherwise a community will run the risk of losing support and derailing the process.

1. Clear and Concise Standards

The most difficult task in design-based code preparation is crafting a standard that achieves a desired effect or outcome without over-manipulating the design process. Design standards should be tied to measurable purposes and outcomes. An example of an outcome is increasing pedestrian activity across a building frontage (to reduce or prevent congestion in the public streets) or ensuring infill building compatibility (to facilitate the creation of a convenient, attractive and harmonious community). This draws the "essential nexus" or required connection between the regulation and a valid public purpose.

An example of this is the desire to move residential buildings closer to the street to encourage pedestrian activity while maintaining a commensurate level of privacy for occupant. To accomplish this, residential buildings historically have been elevated from the grade of the sidewalk, usually approximately 1½ to 2 feet. This will allow the lower sill height of the fronting windows to be above eye-level for most passers-by, ensuring that the occupants can monitor the activities of the street without sharing their evening meal selections with all of their neighbors.



Facade detailing should prevail over all other site elements including parking standards

Codes should also avoid loose, highly subjective language such as "the project should be interesting" or "harmony in texture, lines, and masses [is] encouraged." Particularly in areas where the judiciary has not accepted aesthetic zoning, communities would do well to avoid such vagaries and consistently tie design standards to the purpose statements found in their enabling legislation.

2. Style Neutral

Pundits of design-based codes often categorize over-prescription as the encouragement of "Mickey Mouse architecture" in that buildings are expected to adhere to a rigid, contrived condition. In fact, the opposite is usually the case. Most design-based codes, except for those written specifically for a historic area, are usually much more permissive in style and detail.

To that end, design-based codes outside of a historic district should refrain from specifically mentioning a particular architectural style. Most architectural styles found in the United States can fit well within the context of an urban block. As a rule, good urbanism can trump bad architecture.

Of course, there are some basic rules of pedestrian-scaled design techniques such as the requirement that all buildings have a definable base, middle, and top in façade treatment as well as a requirement for fenestration (doors and windows) at the street level.

A number of specific architectural styles do not meet this definition in the strict sense, particularly modernist styles such as the international style and deconstructionist style. This does not preclude these styles from the urban environment, but special attention would need to be paid to ensure that such iconic architecture does not visually impact the pedestrian realm.

3. Easy to Read Format

The format of the document that presents the design requirements is nearly as important as the standards themselves.

Standards should be clear in their narrative as the legal standard will be tested by the interpretation of the text. Graphics, photos, and illustration should be generously included, but should be used only to supplement the text, not supplant it.

Other basic publishing rules should apply as well including a readable typeface, consistent margins, balanced white space, and a thorough index.

Communities must also consider the prevalence of codifying ordinances through the Municipal Code Corporation (MCC) and similar web-based Code clearinghouses. The format must not be so rigid as

to preclude publishing by the MCC through the overuse of sophisticated formatting.

Communities should strongly consider the use of basic word processing software packages such as Microsoft Word and Corel WordPerfect in lieu of more sophisticated desktop publishing packages such as Quark Express and Adobe PageMaker. Both Word and WordPerfect have a good set of tools for publishing design-based codes which make easy publishing and updating. Adobe Acrobat is also very useful for creating compressed files that are easily posted on the web for broad dissemination.

4. Streamlined Permitting

Perhaps the most important tool in successful implementation of a design-based code is the facilitation of permits. Requiring developers to submit to design requirements, particularly in an area where they are relatively new, and then sending their development application through a rigorous public process is the equivalent of hitting them with two sticks.

In general, developers are much more willing to abide by design guidelines if they know that compliance will assure a permit. Well written design guidelines ensure a sense of predictability for both developers and the public.

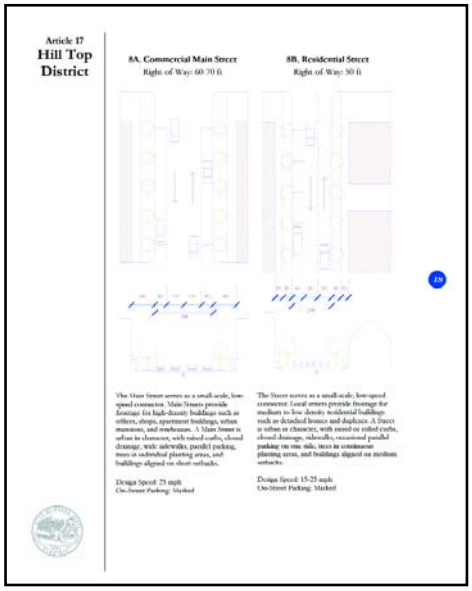
When combined with an expedited permit process, design-based codes will also incentivize developers to spend more money on important elements such as the building facade rather than on a prolonged public process and loan interest.

10 Essential Details for Design-Based Codes

1. Focus on form, not use.
2. Build to the street.
3. Hide the parking.
4. Create great public spaces.
5. Streets should be pedestrian-scaled and multi-modal.
6. Encourage/require street level activity.
7. Building facades should generally have a base, a middle, and a top.
8. Money should be spent on the facade, not the parking lot.
9. Neighborhoods should be compact, pedestrian-friendly, and mixed-use.
10. Communities should be organized around neighborhoods, districts, and corridors.

Ultimately, the implementation of design-based codes will vary from community to community. Some will completely integrate the design process with the zoning ordinance, while other will opt for a floating district/parallel code or a "triggered" mechanism.

Triggered processes include rezonings, a minimum development size or number of lots, or in areas where small area or neighborhood plans have been adopted.



The format of the Code should be clear and easy to read with photos, illustrations, and text

Developers and property owners are subject to the design-standards only when they initiate a change to the development expectations. In other words, they have certain development rights on a by-right basis exclusive of design criteria, but when they seek a change, such as increased density, the design standards would be applied.

Parallel districts/floating overlays work in much the same fashion in that they may have certain performance criteria established in order to qualify. However, unlike triggered mechanisms, they are written in a manner that encourages their use. If the threshold criteria are met (minimum development size, location in conformance with adopted plan, etc.), developers may have the parallel codes applied by-right and need not go through any public approval processes. Many Traditional Neighborhood Development (TND) ordinances are written in this manner.

In conclusion, design-based codes are appropriate in all types of communities from no-growth to high-growth. Care must be taken to craft codes that are appropriate for that community as well combine them with a development approval process that encourages their use.

Use of design-based codes can promote a more consistent, sustainable development for nearly any community.

Design-based codes are part of a great story of democratic design that traces its roots back to the time of ancient Rome, helping communities improve their quality of life and character for the next millennium.

- by Craig S. Lewis, AICP, CNU March, 2003

Craig S. Lewis, AICP, CNU

Managing Principal, Carolinas Office
National Director of Town Planning

THE LAWRENCE GROUP
TOWN PLANNERS & ARCHITECTS

PO Box 1836
108 South Main Street
Davidson, NC 28036
704.896.1696 p
704.896.1697 f
craig.lewis@thelawrencegroup.com
http://www.thelawrencegroup.com

Craig Lewis, AICP, CNU is a Principal in the Carolinas office of The Lawrence Group, a national town planning and architecture based in St. Louis, MO. In this position he leads the national town planning practice for the company that includes neighborhood, town and regional planning efforts for public and private clients.

In addition, Mr. Lewis is nationally recognized for his expertise in the implementation of design-based codes, having authored numerous new urbanist codes and design guidelines throughout the southeast as well as in the mid-west. The form-based codes that he has produced have served as national models for other communities seeking to adopt new design-based techniques to guide growth.

Mr. Lewis is a skilled public facilitator and an advocate and practitioner of the public charrette planning and design process. In addition, he is a strong public speaker and is well sought after as an instructor and presenter.

He holds a B.A. in Political Science and a Masters in Public Administration from the University of North Carolina at Charlotte. He currently serves as the Chairman of the Design Review Board for the Town of Davidson and is a regular studio critic for the University of North Carolina at Charlotte School of Architecture.

His Code experience includes:

Town of Cornelius, NC Land Development Code
Town of Davidson, NC Planning Ordinance
Mount Mourne Neighborhood Code, Mooresville, NC
Downtown Mooresville Code, Mooresville, NC
City of Belmont, NC Land Development Code
City of Raleigh, NC Urban Design Guidelines
Haynie-Sirrine Neighborhood Code, Greenville, SC
City of O'Fallon, MO Downtown Design Guidelines
Town of Summerfield, NC Commercial Development Guidelines
Center of the Region Best Development Practices, Triangle Area, NC
Hilltop - Glen Maury Park Code, Buena Vista, VA
Southside Overlay District, Hendersonville, NC
City of Roanoke, VA Zoning Ordinance (In Progress)
Town of Mooresville, NC Land Development Code (In Progress)